09/634,369

```
=> d his

     (FILE 'HOME' ENTERED AT 19:42:26 ON 08 FEB 2002)

     FILE 'REGISTRY' ENTERED AT 19:42:50 ON 08 FEB 2002
                E EPOXYEICOSATRIENOIC ACID/CN
L1             2 S E3-E4

     FILE 'CAPLUS, BIOSIS, EMBASE' ENTERED AT 19:44:13 ON 08 FEB 2002
L2           228 S L1

     FILE 'REGISTRY' ENTERED AT 19:44:50 ON 08 FEB 2002

=> s e3
L3             1 "EPOXYEICOSATRIENOIC ACID"/CN

=> file caplus, embase, biosis
```

FILE 'CAPLUS' ENTERED AT 19:45:21 ON 08 FEB 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'EMBASE' ENTERED AT 19:45:21 ON 08 FEB 2002
COPYRIGHT (C) 2002 Elsevier Science B.V. All rights reserved.

FILE 'BIOSIS' ENTERED AT 19:45:21 ON 08 FEB 2002
COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC.(R)

=> s l3
L4 227 L3

=> s l4 and (inflammat? or autoimmun? or immunologic? or rheumat? or atherosclero? or cardiovascul?)
L5 91 L4 AND (INFLAMMAT? OR AUTOIMMUN? OR IMMUNOLOGIC? OR RHEUMAT? OR ATHEROSCLERO? OR CARDIOVASCUL?)

=> s l5 and py<=1999
L6 32 L5 AND PY<=1999

=> d l6 abs ibib kwic hitrn 1-32

L6 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2002 ACS
AB Epoxyeicosatrienoic acids (EETs) and their dihydroxy derivs. (DHETs) were measured in urine from human patients with various kinds of **cardiovascular** diseases (pregnancy-induced hypertension and unstable coronary disease) and from patients undergoing angioplasty.
ACCESSION NUMBER: 1991:511877 CAPLUS
DOCUMENT NUMBER: 115:111877
TITLE: Biosynthesis of P450 products of arachidonic acid in humans: increased formation in **cardiovascular** disease
AUTHOR(S): Catella, Francesca; Lawson, John; Braden, Greg; Fitzgerald, Desmond J.; Shipp, Elizabeth; FitzGerald, Garret A.
CORPORATE SOURCE: Div. Clin. Pharmacol., Vanderbilt Univ., Nashville, TN, 37232, USA
SOURCE: Adv. Prostaglandin, Thromboxane, Leukotriene Res. (**1990**), 21A(Prostaglandins Relat. Compd.), 193-6
CODEN: ATLRD6; ISSN: 0732-8141
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Biosynthesis of P450 products of arachidonic acid in humans: increased formation in **cardiovascular** disease
SO Adv. Prostaglandin, Thromboxane, Leukotriene Res. (**1990**), 21A(Prostaglandins Relat. Compd.), 193-6
CODEN: ATLRD6; ISSN: 0732-8141
AB Epoxyeicosatrienoic acids (EETs) and their dihydroxy derivs. (DHETs) were measured in urine from human patients with various kinds of **cardiovascular** diseases (pregnancy-induced hypertension and unstable coronary disease) and from patients undergoing angioplasty.
ST **cardiovascular** disease epoxyeicosatrienoate dihydroxy deriv urine
IT Urine

(epoxyeicosatrienoic acid dihydroxy derivs. of, in **cardiovascular** diseases in humans)
IT **Cardiovascular** system
(disease, epoxyeicosatrienoic acid dihydroxy derivs. of urine in, in humans)
IT 506-32-1D, Arachidonic acid, metabolites **97717-69-6D**, Epoxyeicosatrienoic acid, dihydroxy derivs.
RL: BIOL (Biological study)
(of urine, in **cardiovascular** diseases in humans)
IT **97717-69-6D**, Epoxyeicosatrienoic acid, dihydroxy derivs.
RL: BIOL (Biological study)
(of urine, in **cardiovascular** diseases in humans)

L6 ANSWER 2 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:524419 BIOSIS
DOCUMENT NUMBER: PREV199900524419
TITLE: Mechanism of epoxyeicosatrienoic acid (EET)-and dihydroxyeicosatrienoic acids (DHET)-induced vasodilation in the canine coronary microcirculation.
AUTHOR(S): Oltman, Christine L.; Weintraub, Neal L.; Vanrollins, Mike; Dellsperger, Kevin C.
CORPORATE SOURCE: Univ. Iowa, Iowa City, IA USA
SOURCE: Circulation, (**Oct. 27, 1998**) Vol. 98, No. 17 SUPPL., pp. I622.
Meeting Info.: 71st Scientific Sessions of the American Heart Association Dallas, Texas, USA November 8-11, 1998 The American Heart Association
. ISSN: 0009-7322.
DOCUMENT TYPE: Conference
LANGUAGE: English
SO Circulation, (**Oct. 27, 1998**) Vol. 98, No. 17 SUPPL., pp. I622.
Meeting Info.: 71st Scientific Sessions of the American Heart Association Dallas,. . .
IT Major Concepts
Cardiovascular System (Transport and Circulation); Endocrine System (Chemical Coordination and Homeostasis)
IT Parts, Structures, & Systems of Organisms
coronary microcirculation: circulatory. . .
RN 9048-63-9 (EPOXIDE HYDROLASE)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 3 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:505741 BIOSIS
DOCUMENT NUMBER: PREV199900505741
TITLE: CYP450-dependent epoxyeicosatrienoic acids (EETs) may participate in the pathophysiology of portal hypertension by differentially modulating portal and mesenteric arterial resistance in cirrhotic rats.
AUTHOR(S): Sacerdoti, David (1); Bolognesi, Massimo; Gatta, Angelo; McGiff, John C.; Oyekan, Adebayo
CORPORATE SOURCE: (1) Univ and Azienda Hospital of Padova, Padova Italy
SOURCE: Hepatology, (**Oct., 1999**) Vol. 30, No. 4 PART 2, pp. 237A.
Meeting Info.: 50th Annual Meeting and Postgraduate Courses of the American Association for the Study of Liver Diseases Dallas, Texas, USA November 5-9, 1999 American Association for the Study of Liver Diseases
. ISSN: 0270-9139.

DOCUMENT TYPE: Conference
LANGUAGE: English
SO Hepatology, (**Oct., 1999**) Vol. 30, No. 4 PART 2, pp. 237A.
Meeting Info.: 50th Annual Meeting and Postgraduate Courses of the American. . .
IT Major Concepts
Cardiovascular System (Transport and Circulation); Digestive System (Ingestion and Assimilation)
IT Diseases
cirrhosis: digestive system disease; portal hypertension: digestive system disease,. . .
RN **97717-69-6** (EPOXYEICOSATRIENOIC ACIDS)

L6 ANSWER 4 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB The epoxyeicosatrienoic acids (EETs) are products of cytochrome P450 epoxygenases that have vasodilatory properties similar to that of endothelium-derived hyperpolarizing factor. The cytochrome P450 isoform CYP2J2 was cloned and identified as a potential source of EETs in human endothelial cells. Physiological concentrations of EETs or overexpression of CYP2J2 decreased cytokine-induced endothelial cell adhesion molecule expression, and EETs prevented leukocyte adhesion to the vascular wall by a mechanism involving inhibition of transcription factor NF-kappaB and IkappaB kinase. The inhibitory effects of EETs were independent of their membrane-hyperpolarizing effects, suggesting that these molecules play an important nonvasodilatory role in vascular **inflammation**.
ACCESSION NUMBER: 1999:454729 BIOSIS
DOCUMENT NUMBER: PREV199900454729
TITLE: Anti-**inflammatory** properties of cytochrome P450 epoxygenase-derived eicosanoids.
AUTHOR(S): Node, Koichi; Huo, Yuqing; Ruan, Xiulu; Yang, Baichun; Spiecker, Martin; Ley, Klaus; Zeldin, Darryl C.; Liao, James K. (1)
CORPORATE SOURCE: (1) Vascular Medicine and Atherosclerosis Unit, Cardiovascular Division, Brigham and Women's Hospital and Harvard Medical School, 221 Longwood Avenue, LMRC-322, Boston, MA, 02115 USA
SOURCE: Science (Washington D C), (**Aug. 20, 1999**) Vol. 285, No. 5431, pp. 1276-1279.
ISSN: 0036-8075.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English
TI Anti-**inflammatory** properties of cytochrome P450 epoxygenase-derived eicosanoids.
SO Science (Washington D C), (**Aug. 20, 1999**) Vol. 285, No. 5431, pp. 1276-1279.
ISSN: 0036-8075.
AB. . . effects of EETs were independent of their membrane-hyperpolarizing effects, suggesting that these molecules play an important nonvasodilatory role in vascular **inflammation**.
IT Major Concepts
Biochemistry and Molecular Biophysics; **Cardiovascular** System (Transport and Circulation); Immune System (Chemical Coordination and Homeostasis)
IT Parts, Structures, & Systems of Organisms
leukocyte: adhesion, blood. . . system; vascular wall: circulatory system
IT Chemicals & Biochemicals

cytochrome P450 epoxygenases; cytochrome P450 2J2: cloning, identification, overexpression; cytokines; eicosanoids: anti-**inflammatory** properties, cytochrome P450 epoxygenase-derived; endothelium-derived hyperpolarizing factor; epoxyeicosatrienoic acids: membrane-hyperpolarizing effects, vasodilatory properties, physiological concentrations; vascular cell adhesion molecule: cytokine-induced. . .

IT Miscellaneous Descriptors
vascular **inflammation**

RN 116788-37-5 (ENDOTHELIUM-DERIVED HYPERPOLARIZING FACTOR)
97717-69-6 (EPOXYEICOSATRIENOIC ACIDS)

L6 ANSWER 5 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AB To evaluate the contribution of cytochrome P450 (CYP450) metabolites of arachidonic acid in the increased renal vascular resistance and blunted pressure-natriuresis response exhibited by Lyon hypertensive (LH) rats, the effects of an intrarenal infusion of 17-octadecynoic acid (3 muM), an inhibitor of the formation of epoxyeicosatrienoic and 20-hydroxyeicosatetraenoic acids, were compared in 8-week-old LH and low blood pressure (LL) control rats. 17-Octadecynoic acid failed to affect renal function in LL rats. In contrast, it reduced renal vascular resistance and shifted the pressure-natriuresis relationship to lower pressures in LH rats. Blockade of thromboxane-endoperoxide (TP) receptors with GR 32191B prevented the renal vasodilator response to 17-octadecynoic acid but not its natriuretic action. Miconazole (1 muM), an inhibitor of epoxygenase activity, had no effect on renal function in LH rats. These results indicate that CYP450 metabolites of arachidonic acid, likely 20-hydroxyeicosatetraenoic acid, contribute to the resetting of the pressure-natriuresis relation in LH rats and that the renal vasoconstrictor effects of 20-hydroxyeicosatetraenoic acid in LH rats may be related to activation of TP receptors.

ACCESSION NUMBER: 1999:453011 BIOSIS
DOCUMENT NUMBER: PREV199900453011
TITLE: 20-Hydroxyeicosatetraenoic acid and renal function in Lyon hypertensive rats.
AUTHOR(S): Messer-Letienne, Isabelle; Bernard, Nicole; Roman, Richard J.; Sassard, Jean; Benzoni, Daniel (1)
CORPORATE SOURCE: (1) Departement de Physiologie et Pharmacologie Clinique, Faculte de Pharmacie, CNRS ESA 5014, 8 avenue Rockefeller, 69373, Lyon Cedex 08 France
SOURCE: European Journal of Pharmacology, (**Aug. 13, 1999**) Vol. 378, No. 3, pp. 291-297.
ISSN: 0014-2999.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English
SO European Journal of Pharmacology, (**Aug. 13, 1999**) Vol. 378, No. 3, pp. 291-297.
ISSN: 0014-2999.

IT Major Concepts
Cardiovascular System (Transport and Circulation); Urinary System (Chemical Coordination and Homeostasis)

IT Chemicals & Biochemicals
arachidonic acid; cytochrome P-450; epoxyeicosatrienoic acid;. . .

RN 34450-18-5 (17-OCTADECYNOIC ACID)
79551-86-3 (20-HYDROXYEICOSATETRAENOIC ACID)
506-32-1 (ARACHIDONIC ACID)
9035-51-2 (CYTOCHROME P-450)

97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 6 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:441298 BIOSIS
DOCUMENT NUMBER: PREV199900441298
TITLE: Effects of epoxyeicosatrienoic acids on the cardiac sodium channels in isolated rat ventricular myocytes.
AUTHOR(S): Lee, H. (1); Lu, T. (1); Weintraub, N. L. (1); VanRollins, M. (1); Spector, A. A. (1); Shibata, E. F. (1)
CORPORATE SOURCE: (1) University of Iowa College of Medicine, Iowa City, IA USA
SOURCE: Journal of Investigative Medicine, (**Aug., 1999**) Vol. 47, No. 7, pp. 221A.
Meeting Info.: Meeting of the American Federation for Medical Research, Midwestern Regional Chicago, Illinois, USA September 16-18, 1999 American Federation for Medical Research
. ISSN: 1081-5589.
DOCUMENT TYPE: Conference
LANGUAGE: English
SO Journal of Investigative Medicine, (**Aug., 1999**) Vol. 47, No. 7, pp. 221A.
Meeting Info.: Meeting of the American Federation for Medical Research, Midwestern Regional Chicago,. . .
IT Major Concepts
Biochemistry and Molecular Biophysics; **Cardiovascular** System (Transport and Circulation); Cell Biology
IT Parts, Structures, & Systems of Organisms
ventricular myocytes: circulatory system
IT Chemicals &. . .
RN 97717-69-6D (EPOXYEICOSATRIENOIC ACIDS)
7440-23-5 (SODIUM)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 7 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:428043 BIOSIS
DOCUMENT NUMBER: PREV199900428043
TITLE: Anti-**inflammatory** actions of epoxygenase-derived eicosanoids.
AUTHOR(S): Node, Koichi (1); Liao, James K. (1)
CORPORATE SOURCE: (1) Brigham and Women's Hospital, Boston, MA USA
SOURCE: Journal of the American College of Cardiology, (**Feb., 1999**) Vol. 33, No. 2 SUPPL. A, pp. 2A.
Meeting Info.: 48th Annual Scientific Session of the American College of Cardiology New Orleans, Louisiana, USA March 7-10, 1999 American College of Cardiology
. ISSN: 0735-1097.
DOCUMENT TYPE: Conference
LANGUAGE: English
TI Anti-**inflammatory** actions of epoxygenase-derived eicosanoids.
SO Journal of the American College of Cardiology, (**Feb., 1999**) Vol. 33, No. 2 SUPPL. A, pp. 2A.
Meeting Info.: 48th Annual Scientific Session of the American College of. . .
IT Major Concepts
Cardiovascular System (Transport and Circulation); Metabolism
IT Parts, Structures, & Systems of Organisms
endothelial cell: circulatory system

IT Chemicals & Biochemicals
epoxyeicosatrienoic acid; epoxygenase-derived eicosanoids: anti-**inflammatory** actions
IT Miscellaneous Descriptors
atherogenesis; vascular **inflammation**; Meeting Abstract
RN **97717-69-6** (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 8 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:403064 BIOSIS
DOCUMENT NUMBER: PREV199900403064
TITLE: The inhibition of cytochrome P-450 reduces acetylcholine-induced depression in contractility of the rat heart.
AUTHOR(S): Pagliaro, P. (1); Paolocci, N. (1); Rastaldo, R.; Penna, C. (1); Gattullo, D. (1); Linden, R. J.; Losano, G.
CORPORATE SOURCE: (1) Dipartimento di Scienze Cliniche e Biologiche, Universita di Torino, Torino Italy
SOURCE: Journal of Physiology (Cambridge), (**July, 1999**) Vol. 518P, pp. 43P.
Meeting Info.: Scientific Meeting of the Physiological Society London, England, UK April 19-21, 1999 The Physiological Society
. ISSN: 0022-3751.
DOCUMENT TYPE: Conference
LANGUAGE: English
SO Journal of Physiology (Cambridge), (**July, 1999**) Vol. 518P, pp. 43P.
Meeting Info.: Scientific Meeting of the Physiological Society London, England, UK April 19-21, 1999 The. . .
IT Major Concepts
Cardiovascular System (Transport and Circulation); Muscular System (Movement and Support)
IT Parts, Structures, & Systems of Organisms
heart: acetylcholine-induced contractility depression,. . .
RN 51-84-3 (ACETYLCHOLINE)
506-32-1 (ARACHIDONIC ACID)
9035-51-2 (CYTOCHROME P-450)
116788-37-5 (ENDOTHELIUM-DERIVED HYPERPOLARIZING FACTOR)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 9 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:202099 BIOSIS
DOCUMENT NUMBER: PREV199900202099
TITLE: Endothelium-derived hyperpolarizing factors and vascular cytochrome P450 metabolites of arachidonic acid in the regulation of tone.
AUTHOR(S): Campbell, William B. (1); Harder, David R.
CORPORATE SOURCE: (1) Department of Pharmacology and Toxicology, Medical College of Wisconsin, 8701 Watertown Plank Rd, Milwaukee, WI, 53226 USA
SOURCE: Circulation Research, (**March 5, 1999**) Vol. 84, No. 4, pp. 484-488.
ISSN: 0009-7330.
DOCUMENT TYPE: Editorial
LANGUAGE: English
SO Circulation Research, (**March 5, 1999**) Vol. 84, No. 4, pp. 484-488.
ISSN: 0009-7330.

IT Major Concepts
Cardiovascular System (Transport and Circulation); Membranes (Cell Biology); Metabolism; Muscular System (Movement and Support)
IT Parts, Structures, & Systems of Organisms
RN 9035-51-2 (CYTOCHROME P450)
506-32-1 (ARACHIDONIC ACID)
7440-70-2 (CALCIUM)
24203-36-9 (POTASSIUM ION)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
51-84-3 (ACETYLCHOLINE)
58-82-2 (BRADYKININ)
9013-93-8 (PHOSPHOLIPASE)

L6 ANSWER 10 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:171075 BIOSIS
DOCUMENT NUMBER: PREV199900171075
TITLE: Depressed EET synthesis does not explain enhanced pressor response to norepinephrine (NE) after heart failure (HF.
AUTHOR(S): Townsley, M. I. (1); Leuwerke, S.; Jacobs, E. R.
CORPORATE SOURCE: (1) Univ. S. Ala., Mobile, AL 36688 USA
SOURCE: FASEB Journal, (**March 12, 1999**) Vol. 13, No. 4 PART 1, pp. A500.
Meeting Info.: Annual Meeting of the Professional Research Scientists for Experimental Biology 99 Washington, D.C., USA April 17-21, 1999
ISSN: 0892-6638.
DOCUMENT TYPE: Conference
LANGUAGE: English
SO FASEB Journal, (**March 12, 1999**) Vol. 13, No. 4 PART 1, pp. A500.
Meeting Info.: Annual Meeting of the Professional Research Scientists for. . .
IT Major Concepts
Cardiovascular System (Transport and Circulation); Nervous System (Neural Coordination); Respiratory System (Respiration)
IT Parts, Structures, & Systems of Organisms
lung: respiratory. . .
RN 51-41-2 (NOREPINEPHRINE)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
525-66-6 (PROPRANOLOL)
50-47-5 (DESIPRAMINE)
23593-75-1 (CLOTRIMAZOLE)

L6 ANSWER 11 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:171074 BIOSIS
DOCUMENT NUMBER: PREV199900171074
TITLE: Epoxyeicosatrienoic acids (EETs) increase the state of activation of rabbit pulmonary arteries.
AUTHOR(S): Zhu, D.; Roman, R. J.; Harder, D. R.; Rossi, R.; Effros, R. M.; Jacobs, E. R.
CORPORATE SOURCE: Med. Coll. Wis., CVRC, Milwaukee, WI 53226 USA
SOURCE: FASEB Journal, (**March 12, 1999**) Vol. 13, No. 4 PART 1, pp. A499.
Meeting Info.: Annual Meeting of the Professional Research Scientists for Experimental Biology 99 Washington, D.C., USA April 17-21, 1999
ISSN: 0892-6638.
DOCUMENT TYPE: Conference
LANGUAGE: English

SO FASEB Journal, (**March 12, 1999**) Vol. 13, No. 4 PART 1, pp. A499.
Meeting Info.: Annual Meeting of the Professional Research Scientists for. . .
IT Major Concepts
Cardiovascular System (Transport and Circulation); Respiratory System (Respiration)
IT Parts, Structures, & Systems of Organisms
pulmonary artery: activation state, circulatory system
RN 97717-69-6D (EPOXYEICOSATRIENOIC ACIDS)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
53-86-1 (INDOMETHACIN)

L6 ANSWER 12 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:169609 BIOSIS
DOCUMENT NUMBER: PREV199900169609
TITLE: Arachidonic acid metabolites regulate functional hyperemia.
AUTHOR(S): Hester, R. L.; Nuttle, L. C.; Ligon, A.; Farrell, K.
CORPORATE SOURCE: Univ. Miss. Med. Cent., Jackson, MS 39216 USA
SOURCE: FASEB Journal, (**March 12, 1999**) Vol. 13, No. 4 PART 1, pp. A28.
Meeting Info.: Annual Meeting of the Professional Research Scientists for Experimental Biology 99 Washington, D.C., USA April 17-21, 1999
ISSN: 0892-6638.
DOCUMENT TYPE: Conference
LANGUAGE: English
SO FASEB Journal, (**March 12, 1999**) Vol. 13, No. 4 PART 1, pp. A28.
Meeting Info.: Annual Meeting of the Professional Research Scientists for. . .
IT Major Concepts
Cardiovascular System (Transport and Circulation); Muscular System (Movement and Support)
IT Parts, Structures, & Systems of Organisms
arteriole: circulatory system; cremaster. . .
RN 506-32-1 (ARACHIDONIC ACID)
9035-51-2 (CYTOCHROME P-450)
39391-18-9 (CYCLOOXYGENASE)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
22916-47-8 (MICONAZOLE)
53-86-1 (INDOMETHACIN)

L6 ANSWER 13 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB Products of cytochrome P-450 enzymes may play a role in capacitative Ca2+ entry in endothelial cells, which can promote a rise in vascular permeability. Thapsigargin (150 nM) stimulated capacitative Ca2+ entry and increased the capillary filtration coefficient (Kf,c) in isolated normal canine lung lobes. Pretreatment of the lobes with cytochrome P-450 inhibitors clotrimazole (10 muM) or 17-octadecynoic acid (5 muM) abolished the thapsigargin-induced increases in Kf,c. Because clotrimazole also blocks Ca2+-activated K+ channels, the K+-channel blocker tetraethylammonium (10 mM) was used to ensure that permeability was not influenced by this mechanism. Tetraethylammonium did not affect thapsigargin-induced permeability. The effects of the cytochrome P-450 arachidonic acid metabolite 5,6-epoxyeicosatrienoic acid (EET) were also investigated in lobes taken from control dogs and dogs with pacing-induced heart failure (paced at 245 beats/min for 4 wk). 5,6-EET (10 muM) significantly increased Kf,c in lobes from the control but not from the paced animals. We conclude that cytochrome P-450 metabolites are involved

in mediating microvascular permeability in normal canine lungs, but an absence of 5,6-EET after heart failure does not explain the resistance of lungs from these animals to permeability changes.

ACCESSION NUMBER: 1998:503254 BIOSIS
DOCUMENT NUMBER: PREV199800503254
TITLE: Involvement of cytochrome P-450 enzyme activity in the control of microvascular permeability in canine lung.
AUTHOR(S): Ivey, Claire L. (1); Stephenson, Alan H.; Townsley, Mary I.
CORPORATE SOURCE: (1) Dep. Physiol., MSB 3024, Univ. South Alabama, Mobile, AL 36688 USA
SOURCE: American Journal of Physiology, (**Oct., 1998**) Vol. 275, No. 4 PART 1, pp. L756-L763.
ISSN: 0002-9513.
DOCUMENT TYPE: Article
LANGUAGE: English
SO American Journal of Physiology, (**Oct., 1998**) Vol. 275, No. 4 PART 1, pp. L756-L763.
ISSN: 0002-9513.
IT Major Concepts
Cardiovascular System (Transport and Circulation); Enzymology (Biochemistry and Molecular Biophysics); Respiratory System (Respiration)
IT Parts, Structures, & Systems of Organisms
calcium. . .
RN 9035-51-2 (CYTOCHROME P-450)
14127-61-8 (CALCIUM ION)
24203-36-9 (POTASSIUM ION)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 14 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB 1. The present work aimed to assess the role of cytochrome P-450 (CP-450) metabolites of arachidonic acid such as epoxyeicosatrienoic (EET) and hydroxyeicosatetraenoic acids (HETE) in the renal vasoconstriction and decreased natriuresis exhibited by genetically hypertensive (LH) rats of the Lyon strain. 2. The experiment was performed on single-pass isolated perfused kidney preparations from 8-week-old male LH rats and their low blood pressure (LL) controls. The effects of miconazole (an inhibitor of the formation of EET) and of 17-octadecynoic acid (17-ODYA, an inhibitor of both EET and BETE synthesis) were studied before and after stimulation of the kidneys with two noradrenaline (NA) infusions (65 and 110 nmol/L). 3. Unstimulated LH kidneys (n = 12) differed from LL (n = 12) by increased vascular resistance (RVR) and decreased glomerular filtration rate and urinary sodium excretion (UNaV). 4. Miconazole (1 mumol/L) did not change the functions of LH and LL unstimulated kidneys, but blunted the vasoconstrictor response to NA (110 nmol/L), the difference being significant in LH kidneys only (1.7 +- 0.2 vs 3.6 +- 1.2 mmHg/mL per min per g; P<0.05). 5. Addition of 17-ODYA (3 mumol/L) to miconazole did not modify RVR in LH and LL kidneys or the response to NA infusion. On the contrary, it increased UNAV, the differences being significant in LH kidneys only (22.9 +- 1.4 vs 17.5 +- 1.4 mumol/min per g; P<0.05 after NA 110 nmol/L). 6. It is suggested that EET may contribute to the elevated RVR and HETE to the reduced ability to excrete sodium, of LH kidneys.

ACCESSION NUMBER: 1998:358209 BIOSIS
DOCUMENT NUMBER: PREV199800358209
TITLE: Cytochrome P-450-dependent arachidonate metabolites and renal functions in the Lyon hypertensive rat.
AUTHOR(S): Messer-Letienne, I.; Bernard, N.; Benzoni, D.; Sassard, J. (1)

CORPORATE SOURCE: (1) Fac. Pharm., 8 avenue Rockefeller, 69373 Lyon Cedex 08 France
SOURCE: Clinical and Experimental Pharmacology and Physiology, (**July-Aug., 1998**) Vol. 25, No. 7-8, pp. 559-563.
ISSN: 0305-1870.
DOCUMENT TYPE: Article
LANGUAGE: English
SO Clinical and Experimental Pharmacology and Physiology, (**July-Aug., 1998**) Vol. 25, No. 7-8, pp. 559-563.
ISSN: 0305-1870.
IT Major Concepts
Cardiovascular System (Transport and Circulation); Urinary System (Chemical Coordination and Homeostasis)
IT Parts, Structures, & Systems of Organisms
kidney: excretory system
RN 9035-51-2 (CYTOCHROME P-450)
506-32-1 (ARACHIDONATE)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
69845-60-9 (HYDROXYEICOSATETRAENOIC ACID)

L6 ANSWER 15 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB 1. Acetylcholine (ACh) elicits an endothelium-dependent relaxation and hyperpolarization in the absence of nitric oxide (NO) and prostaglandin synthesis in the guinea-pig coronary artery (GPCA). This response has been attributed to a factor termed endothelial-derived hyperpolarizing factor (EDHF). Recently it has been suggested that EDHF may be a cytochrome P450 product of arachidonic acid (AA) i.e., an epoxyeicosatrienoic acid (EET). The present study investigated whether this pathway could account for the response to ACh observed in the GPCA in the presence of 100 muM Nomega-nitro-L-arginine and 10 muM indomethacin. 2. ACh, AA and 11,12-EET each produced concentration-dependent relaxations in arteries contracted with the H1-receptor agonist AEP (2,2-aminoethylpyridine). The AA-induced relaxation was significantly enhanced in the presence of the cyclo-oxygenase/lipoxygenase inhibitor, eicosatetranynoic acid (30 muM). 3. The cytochrome P450 inhibitors proadifen (10 muM) and clotrimazole (10 muM) inhibited ACh, lemakalim (LEM) and AA-induced relaxation, whereas 17-octadecynoic acid (100 muM) and 7-ethoxyresorufin (10 muM) were without effect on all three vasodilators. Proadifen and clotrimazole also inhibited ACh (1 muM) and LEM (1 muM)-induced hyperpolarization. 4. The ability of various potassium channel blockers to inhibit relaxation responses elicited with ACh, AA and 11,12-EET was also determined. Iberiotoxin (IBTX; 100 nM) was without effect on responses to ACh but significantly reduced responses to both AA and 11,12-EET. In contrast, 4-aminopyridine (4AP; 5 muM) significantly reduced response to ACh but not responses to AA and 11,12-EET. Combined IBTX plus (4-AP) inhibited the ACh-induced relaxation to a greater extent than 4-AP alone. Apamin (1 muM), glibenclamide (10 muM) and BaCl2 (50 muM) had no significant effect on responses to ACh, AA and 11,12-EET. 5. IBTX (100 nM) significantly reduced both 11,12-EET (33 muM) and AA (30 muM) hyperpolarization without affecting the ACh (1 muM)-induced hyperpolarization. In contrast, 4-AP significantly reduced the ACh-induced hyperpolarization without affecting either AA or 11,12-EET-induced hyperpolarizations. 6. In summary, our results suggest that the coronary endothelium releases a factor upon application of AA which hyperpolarizes the smooth muscle. The similarity of pharmacology between AA and 11,12-EET suggests that this factor is an EET. However, the disparity of pharmacology between responses to ACh versus responses to 11,12-EET do not support the hypothesis that EETs represent the predominant factor which ACh releases from the endothelium

that leads to NO- and prostaglandin-independent hyperpolarization and relaxation in the GPCA.

ACCESSION NUMBER: 1998:298171 BIOSIS
DOCUMENT NUMBER: PREV199800298171
TITLE: Endothelium-dependent relaxation and hyperpolarization in guinea-pig coronary artery: Role of epoxyeicosatrienoic acid.
AUTHOR(S): Eckman, D. M.; Hopkins, N.; McBride, C.; Keef, K. D. (1)
CORPORATE SOURCE: (1) Dep. Physiol. Cell Biol/352, Univ. Nevada Sch. Med., Reno, NV 89557 USA
SOURCE: British Journal of Pharmacology, (**May, 1998**) Vol. 124, No. 1, pp. 181-189.
ISSN: 0007-1188.
DOCUMENT TYPE: Article
LANGUAGE: English
SO British Journal of Pharmacology, (**May, 1998**) Vol. 124, No. 1, pp. 181-189.
ISSN: 0007-1188.
IT Major Concepts
Biochemistry and Molecular Biophysics; **Cardiovascular** System (Transport and Circulation); Pharmacology
IT Parts, Structures, & Systems of Organisms
coronary artery: circulatory system; endothelium: circulatory system, hyperpolarization,. . .
RN **97717-69-6** (EPOXYEICOSATRIENOIC ACID)
51-84-3 (ACETYLCHOLINE)
10102-43-9 (NITRIC OXIDE)
506-32-1 (ARACHIDONIC ACID)
53-86-1 (INDOMETHACIN)
2149-70-4 (N-OMEGA-NITRO-L-ARGININE)
9035-51-2 (CYTOCHROME P450)

L6 ANSWER 16 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1998:114879 BIOSIS
DOCUMENT NUMBER: PREV199800114879
TITLE: EDHF: Several candidates for one function.
AUTHOR(S): Mombouli, Jean-Vivien (1)
CORPORATE SOURCE: (1) Cent. Experimental Therapuetics, Baylor Coll. Med., Houston, TX 77030 USA
SOURCE: British Journal of Pharmacology, (**Dec., 1997**) Vol. 122, No. PROC. SUPPL., pp. 446P.
Meeting Info.: Joint Meeting of the British Pharmacological Society with the French Society of Pharmacology Edinburgh, Scotland, UK September 2-4, 1997 The French Society of Pharmacology
. ISSN: 0007-1188.
DOCUMENT TYPE: Conference
LANGUAGE: English
SO British Journal of Pharmacology, (**Dec., 1997**) Vol. 122, No. PROC. SUPPL., pp. 446P.
Meeting Info.: Joint Meeting of the British Pharmacological Society with the French. . .
IT Major Concepts
Biochemistry and Molecular Biophysics; **Cardiovascular** System (Transport and Circulation); Pharmacology
IT Parts, Structures, & Systems of Organisms
coronary artery: circulatory system; pulmonary artery: circulatory system;. . .

RN 10102-43-9 (NITRIC OXIDE)
630-08-0 (CARBON MONOXIDE)
9059-22-7 (HEME OXYGENASE)
94421-68-8 (ANANDAMIDE)
158681-13-1 (SR141716A)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 17 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1998:114877 BIOSIS
DOCUMENT NUMBER: PREV199800114877
TITLE: Is EDHF A P450-dependent metabolite of arachidonic acid.
AUTHOR(S): Busse, Rudi (1)
CORPORATE SOURCE: (1) Inst. Kardiovaskulaere Physiolgie, Klinikum J. W. Goethe-Univ., Theodor-Stern-Kai 7, 60596 Frankfurt Main Germany
SOURCE: British Journal of Pharmacology, (**Dec., 1997**) Vol. 122, No. PROC. SUPPL., pp. 444P.
Meeting Info.: Joint Meeting of the British Pharmacological Society with the French Society of Pharmacology Edinburgh, Scotland, UK September 2-4, 1997 The French Society of Pharmacology
. ISSN: 0007-1188.
DOCUMENT TYPE: Conference
LANGUAGE: English
SO British Journal of Pharmacology, (**Dec., 1997**) Vol. 122, No. PROC. SUPPL., pp. 444P.
Meeting Info.: Joint Meeting of the British Pharmacological Society with the French. . .
IT Major Concepts
Cardiovascular System (Transport and Circulation); Enzymology (Biochemistry and Molecular Biophysics); Pharmacology
IT Parts, Structures, & Systems of Organisms
carotid artery: circulatory. . .
RN 9035-51-2 (P450)
506-32-1 (ARACHIDONIC ACID)
125978-95-2 (NITRIC OXIDE SYNTHASE)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 18 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB 1. Epoxyeicosatrienoic acids (EETs) have been described as endothelium-derived hyperpolarizing factors (EDHFs), based on their stimulatory effects on smooth muscle K+ channels. In order to reveal a putative autocrine effect of EETs on endothelial channels, we have studied the effects of the four EET regioisomers (5,6-EET, 8,9-EET, 11,12-EET and 14,15-EET) on the high-conductance, Ca2+-dependent K+ (BKCa) channel recorded in inside-out patches of primary cultured pig coronary artery endothelial cells. Currents were recorded in the presence of either 500 nm or 1 muM free Ca2+ on the cytosolic side of the membrane. 2. In 81% of experiments, EETs at < 156 nm, applied on the cytosolic side of the membrane, transiently increased BKCa channel open state probability (Po) without affecting its unitary conductance, thus providing evidence for direct action of EETs, without involvement of a cytosolic transduction pathway. 3. The four EET regioisomers appeared to be equally active, multiplying the BKCa, channel Po by a mean factor of 4.3 +- 0.6 (n = 15), and involving an increase in the number and duration of openings. 4. The EET-induced increase in BKCa channel activity was more pronounced with low initial Po. When the BKCa channel was activated by 500 nM Ca2+ application of EETs increased the initial Po value of below 0.1 by a factor of 5. When

the channel was activated by 1 mum Ca2+, application of EETs increased the initial Po value by a factor of 3. 5. Our results show that EETs potentiate endothelial BKCa channel activation by Ca2+. The autocrine action of EETs on endothelial cells, which occurs in the same concentration range as their action on muscle cells, should therefore fully participate in the vasoactive effects of EETs, and thus be taken into account when considering their putative EDHF function.

ACCESSION NUMBER: 1998:29536 BIOSIS
DOCUMENT NUMBER: PREV199800029536
TITLE: Epoxyeicosatrienoic acids activate a high-conductance, Ca2+-dependent K+ channel on pig coronary artery endothelial cells.
AUTHOR(S): Baron, A.; Frieden, M.; Beny, J.-L. (1)
CORPORATE SOURCE: (1) Dep. Zool. Anim. Biol., Sci. III, 30 quai E. Ansermet, 1211 Geneva 4 Switzerland
SOURCE: Journal of Physiology (Cambridge), (**Nov., 1997**) Vol. 504, No. 3, pp. 537-543.
ISSN: 0022-3751.
DOCUMENT TYPE: Article
LANGUAGE: English
SO Journal of Physiology (Cambridge), (**Nov., 1997**) Vol. 504, No. 3, pp. 537-543.
ISSN: 0022-3751.
IT Major Concepts
Cardiovascular System (Transport and Circulation)
IT Parts, Structures, & Systems of Organisms
coronary artery epithelial cell: circulatory system
IT Chemicals &. . .
RN 97717-69-6D (EPOXYEICOSATRIENOIC ACIDS)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
7440-70-2 (CALCIUM)
7440-09-7 (POTASSIUM)

L6 ANSWER 19 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1998:17296 BIOSIS
DOCUMENT NUMBER: PREV199800017296
TITLE: Dihydroxyeicosatrienoic acids (DHET), metabolites of epoxyeicosatrienoic acids (EET) are potent vasodilators in the canine coronary microcirculation.
AUTHOR(S): Ottman, Christine L.; Weintraub, Neal L.; Vanrollins, Mike; Dellsperger, Kevin C.
CORPORATE SOURCE: Univ. Iowa, Iowa City, IA USA
SOURCE: Circulation, (**10/21/97, 1997**) Vol. 96, No. 8 SUPPL., pp. I380.
Meeting Info.: 70th Scientific Sessions of the American Heart Association Orlando, Florida USA November 9-12, 1997
ISSN: 0009-7322.
DOCUMENT TYPE: Conference
LANGUAGE: English
SO Circulation, (**10/21/97, 1997**) Vol. 96, No. 8 SUPPL., pp. I380.
Meeting Info.: 70th Scientific Sessions of the American Heart Association Orlando, Florida,. . .
IT Major Concepts
Cardiovascular System (Transport and Circulation)
IT Parts, Structures, & Systems of Organisms
coronary microcirculation: circulatory system
IT Chemicals & Biochemicals
dihydroeicosatrienoic. . .

RN 97717-69-6D (EPOXYEICOSATRIENOIC ACIDS)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 20 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB The present study on the newborn pig cerebral microcirculation determined the vasoactive properties of epoxyeicosatrienoic acids (EETs) and the contributions of prostaglandin cyclooxygenase to these properties. Pial arterioles of anesthetized piglets were observed through closed cranial windows, EETs were applied topically, and artificial cerebrospinal fluid from beneath the cranial windows was collected for the determination of adenosine 3',5'-cyclic monophosphate and 6-ketoprostaglandin F-1alpha. EETs caused dilation of pial arterioles and increased adenosine 3',5'-cyclic monophosphate. 5,6-EET produced a dose-dependent dilation at 10-8 M and above, whereas 10-6 M was required for 8,9-EET, 11,12-EET, and 14,15-EET. Indomethacin abolished pial arteriolar dilation to the EETs. However, EETs did not increase cortical 6-ketoprostaglandin F-1alpha concentration. Treatment of indomethacin-treated piglets with iloprost (10-12 M topically) restored dilation to 5,6-EET. Neither isoproterenol nor sodium nitroprusside allowed vasodilation to 5,6-EET in indomethacin-treated piglets. Therefore, in the newborn pig cerebral microvasculature, EETs are potent vasodilators and prostacyclin-receptor agonists are necessary to allow this dilation to occur.
ACCESSION NUMBER: 1997:411389 BIOSIS
DOCUMENT NUMBER: PREV199799703432
TITLE: Newborn piglet cerebral microvascular responses to epoxyeicosatrienoic acids.
AUTHOR(S): Leffler, Charles W. (1); Fedinec, Alexander L.
CORPORATE SOURCE: (1) Dep. Physiol. Biophysics, Univ. Tennessee Memphis, 894 Union Ave., Room NA426, Memphis, TN 38163 USA
SOURCE: American Journal of Physiology, (1997) Vol. 273, No. 1 PART 2, pp. H333-H338.
ISSN: 0002-9513.
DOCUMENT TYPE: Article
LANGUAGE: English
SO American Journal of Physiology, (1997) Vol. 273, No. 1 PART 2, pp. H333-H338.
ISSN: 0002-9513.
IT Major Concepts
Cardiovascular System (Transport and Circulation); Endocrine System (Chemical Coordination and Homeostasis); Enzymology (Biochemistry and Molecular Biophysics); Metabolism
IT Chemicals & Biochemicals
IT Miscellaneous Descriptors
CARDIOVASCULAR SYSTEM; CEREBRAL MICROCIRCULATION; CEREBRAL MICROVASCULAR RESPONSE; CYCLIC AMP; EPOXYEICOSATRIENOIC ACID; NEWBORN; PROSTAGLANDIN CYCLOOXYGENASE; 6-KETOPROSTAGLANDIN F1-ALPHA
RN 97717-69-6D (EPOXYEICOSATRIENOIC ACIDS)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
39391-18-9 (PROSTAGLANDIN CYCLOOXYGENASE)
58962-34-8 (6-KETOPROSTAGLANDIN F1-ALPHA)
60-92-4 (CYCLIC AMP)

L6 ANSWER 21 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB Epoxyeicosatrienoic acids (EETs) are potent endothelium-derived vasodilators formed from cytochrome P-450 metabolism of arachidonic acid. EETs and their diol products (DHETs) are also avidly taken up by endothelial cells and incorporated into phospholipids that participate in signal transduction. To investigate the possible functional significance

of EET and DHET incorporation into cell lipids, we examined the capacity of EETs and DHETs to relax porcine coronary arterial rings and determined responses to bradykinin (which potently activates endothelial phospholipases) before and after incubating the rings with these eicosanoids. 14,15-EET and 11,12-EET (5 mu-mol/L) produced 75+-9% and 52+-4% relaxation, respectively, of U46619-contracted rings, whereas 8,9-EET and 5,6-EET did not produce significant relaxation. The corresponding DHET regioisomers produced comparable relaxation responses. Preincubation with 14,15-EET, 11,12-EET, 14,15-DHET, and 11,12-DHET augmented the magnitude and duration of bradykinin-induced relaxation, whereas endothelium-independent relaxations to aprikalim and sodium nitroprusside were not potentiated. Pretreatment with 2 mu-mol/L triacsin C (an inhibitor of acyl coenzyme A synthases) inhibited (3H)14,15-EET incorporation into endothelial phospholipids and blocked 11,12-EET- and 14,15-DHET-induced potentiation of relaxation to bradykinin. Exposure of (3H)14,15-EET labeled endothelial cells to the Ca-2+ ionophore A23187 (2 mu-mol/L) resulted in a 4-fold increased release of EET and DHET into the medium. We conclude that incorporation of EETs and DHETs into cell lipids results in potentiation of bradykinin-induced relaxation in porcine coronary arteries, providing the first evidence that incorporated EETs and DHETs are capable of modulating vascular function.

ACCESSION NUMBER: 1997:387655 BIOSIS
DOCUMENT NUMBER: PREV199799686858
TITLE: Potential of endothelium-dependent relaxation by epoxyeicosatrienoic acids.
AUTHOR(S): Weintraub, Neal L. (1); Fang, Xiang; Kaduce, Terry L.; Vanrollins, Mike; Chatterjee, Papri; Spector, Arthur A.
CORPORATE SOURCE: (1) Dep. Internal Med., Cardiovascular Div., E-329GH, Univ. Iowa Coll. Med., Iowa City, IA 52242 USA
SOURCE: Circulation Research, (1997) Vol. 81, No. 2, pp. 258-267. ISSN: 0009-7330.
DOCUMENT TYPE: Article
LANGUAGE: English
SO Circulation Research, (1997) Vol. 81, No. 2, pp. 258-267. ISSN: 0009-7330.
IT Major Concepts
Biochemistry and Molecular Biophysics; **Cardiovascular** System (Transport and Circulation); Enzymology (Biochemistry and Molecular Biophysics)
IT Chemicals & Biochemicals
EPOXYEICOSATRIENOIC ACIDS; EPOXYEICOSATRIENOIC ACID; ARACHIDONIC ACID; BRADYKININ
IT Miscellaneous Descriptors
ACYL COENZYME A SYNTHASE; ARACHIDONIC ACID; BRADYKININ; **CARDIOVASCULAR** SYSTEM; CELL LIPIDS; CIRCULATORY SYSTEM; CORONARY ARTERY; DIHYDROXYEICOSATRIENOIC ACID; EPOXYEICOSATRIENOIC ACID; METABOLISM; RELAXATION
RN 97717-69-6D (EPOXYEICOSATRIENOIC ACIDS)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
506-32-1 (ARACHIDONIC ACID)
58-82-2 (BRADYKININ)

L6 ANSWER 22 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1997:238670 BIOSIS
DOCUMENT NUMBER: PREV199799537873
TITLE: Modulation of endothelial cell function by pulsatile blood flow.
AUTHOR(S): Busse, Rudi; Fleming, Ingrid

CORPORATE SOURCE: Zentrum der Physiologie, Klinikum der J. W. Goethe-Univ., Theodor-Stern-Kai 7, D-60590 Frankfurt am Main Germany
SOURCE: European Journal of Cell Biology, (1997) Vol. 72, No. SUPPL. 43, pp. 8.
Meeting Info.: Annual Meeting of the Deutsche Gesellschaft fuer Zellbiologie (German Society for Cell Biology) Halle, Germany March 16-20, 1997
ISSN: 0171-9335.
DOCUMENT TYPE: Conference; Abstract
LANGUAGE: English
SO European Journal of Cell Biology, (1997) Vol. 72, No. SUPPL. 43, pp. 8.
Meeting Info.: Annual Meeting of the Deutsche Gesellschaft fuer Zellbiologie (German Society for Cell Biology) Halle, Germany March 16-20, 1997
ISSN: 0171-9335.
IT Major Concepts
Biochemistry and Molecular Biophysics; **Cardiovascular** System (Transport and Circulation); Endocrine System (Chemical Coordination and Homeostasis); Membranes (Cell Biology); Metabolism; Muscular System (Movement and Support)
IT. . .
IT Miscellaneous Descriptors
APAMINE; CALCIUM ION; CALCIUM ION-SENSITIVE POTASSIUM ION CHANNEL; CALMIDAZOLIUM; CALMODULIN; CALMODULIN ANTAGONIST; **CARDIOVASCULAR** SYSTEM; CELL BIOLOGY; CYTOSKELETAL; EDHF; ENDOTHELIUM-DERIVED HYPERPOLARIZING FACTOR; ENZYME INHIBITOR; EPOXYEICOSATRIENOIC ACID; ERBSTATIN A; FLUID SHEAR STRESS; HERBIMYCIN A; IBERIATOXIN;. . .
RN . . . (CALCIUM ION)
80449-02-1 (TYROSINE KINASE)
125978-95-2 (NITRIC OXIDE SYNTHASE)
95013-41-5 (CALMIDAZOLIUM)
100827-28-9 (ERBSTATIN)
70563-58-5 (HERBIMYCIN A)
153-87-7Q (INTEGRIN)
60791-49-3Q (INTEGRIN)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
24345-16-2 (APAMINE)
7440-09-7 (POTASSIUM)
24203-36-9 (POTASSIUM ION)

L6 ANSWER 23 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1997:184653 BIOSIS
DOCUMENT NUMBER: PREV199799483856
TITLE: Characterization of gene structure and the aberrant gene transcripts of cytochrome P450 2C23 in rat kidney.
AUTHOR(S): Lin, M. C. (1); Babu, S. Y.; Haeggstrom, J.; Wong, P. Y.-K.
CORPORATE SOURCE: (1) Dep. Cell Biol., UMDNJ, SOM, Stratford, NJ 08084 USA
SOURCE: FASEB Journal, (1997) Vol. 11, No. 3, pp. A166.
Meeting Info.: Annual Meeting of the Professional Research Scientists on Experimental Biology 97 New Orleans, Louisiana, USA April 6-9, 1997
ISSN: 0892-6638.
DOCUMENT TYPE: Conference; Abstract
LANGUAGE: English
SO FASEB Journal, (1997) Vol. 11, No. 3, pp. A166.
Meeting Info.: Annual Meeting of the Professional Research Scientists on Experimental Biology 97 New Orleans, Louisiana, USA April 6-9, 1997

ISSN: 0892-6638.

IT Major Concepts
Biochemistry and Molecular Biophysics; **Cardiovascular** System (Transport and Circulation); Cell Biology; Enzymology (Biochemistry and Molecular Biophysics); Genetics; Metabolism; Molecular Genetics (Biochemistry and Molecular Biophysics); Urinary. . .

RN 9035-51-2 (CYTOCHROME P450)
506-32-1 (ARACHIDONIC ACID)
94525-96-9 (ARACHIDONIC ACID EPOXYGENASE)
97717-69-6 (EPOXYEICOSATRIENOIC ACIDS)

L6 ANSWER 24 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AB Recent studies have suggested that coronary endothelial cells produce and release nitric oxide (NO), prostaglandin I-2, and epoxyeicosatrienoic acids (EETs). These endothelium-derived vasodilators play an important role in the control of coronary vascular tone. However, the mechanism by which these endothelium-derived vasodilators cause relaxation of coronary arterial smooth muscle has yet to be determined. This study characterized and compared the effects of NO, prostaglandin I-2, and 11,12-EET on the two main types of potassium channels in small bovine coronary arterial smooth muscle: the large conductance Ca-2+-activated K+ channels (K-Ca) and 4-aminopyridine-sensitive delayed rectifier K+ channels (K-drf). In cell-attached patches, nonoate, an NO donor, activated both K-Ca and K-drf channels. The open probability of both K-Ca and K-drf channels increased 10- to 25-fold when nonoate was added to the bath at concentrations of 10-6 to 10-4 mol/L. 11,12-EET (10-8 to 10-4 mol/L) also increased the activity Of the K-Ca channels in a concentration-dependent manner, but it had no effect on the activity of the K-drf channels, even in the highest concentration studied (10-4 mol/L). In contrast to the effect of 11,12-EET, iloprost, a prostaglandin I-2 analogue (10-6 to 10-4 mol/L), produced a concentration-dependent increase in the activity of K-drf channels without affecting the K-Ca channels. In conclusion, all three endotheliumderived vasodilators act to open potassium channels; however, the channel types that they affect are different. NO activates both K-Ca and K-drf channels; 11,12-EET activates only the K-Ca channels; and prostaglandin I-2 activates only the K-drf channels.

ACCESSION NUMBER: 1997:128228 BIOSIS
DOCUMENT NUMBER: PREV199799420041
TITLE: Regulation of potassium channels in coronary arterial smooth muscle by endothelium-derived vasodilators.
AUTHOR(S): Li, Pin-Lin (1); Zou, Ai-Ping; Campbell, William B.
CORPORATE SOURCE: (1) Dep. Pharmacol. Toxicol., Med. Coll. Wisconsin, 8701 Watertown Plank Rd., Milwaukee, WI 53226 USA
SOURCE: Hypertension (Dallas), (1997) Vol. 29, No. 1 PART 2, pp. 262-267.
ISSN: 0194-911X.
DOCUMENT TYPE: Article
LANGUAGE: English
SO Hypertension (Dallas), (1997) Vol. 29, No. 1 PART 2, pp. 262-267.
ISSN: 0194-911X.

IT Major Concepts
Biochemistry and Molecular Biophysics; **Cardiovascular** System (Transport and Circulation); Cell Biology; Endocrine System (Chemical Coordination and Homeostasis); Membranes (Cell Biology)

IT Chemicals & Biochemicals
POTASSIUM; . . .

IT Miscellaneous Descriptors
CARDIOVASCULAR SYSTEM; CIRCULATORY SYSTEM; CORONARY ARTERY;

ENDOTHELIUM; EPOXYEICOSATRIENOIC ACID; MUSCULAR SYSTEM; NITRIC OXIDE; POTASSIUM CHANNEL; PROSTACYCLIN; VASCULAR SMOOTH MUSCLE

RN 7440-09-7 (POTASSIUM)
10102-43-9 (NITRIC OXIDE)
35121-78-9 (PROSTACYCLIN)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 25 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AB Epoxygenase metabolites of arachidonic acid are produced by the kidney and have been implicated in the control of renal blood flow. This study examined the preglomerular actions of various epoxyeicosatrienoic acids (EET). By use of the in vitro blood-perfused juxtamedullary nephron preparation, interlobular and afferent arteriolar diameter responses to 5,6-EET, 8,9-EET, 11,12-EET, and 14,15-EET were determined. Diameters of interlobular and afferent arterioles preconstricted with 0.5 mu-M norepinephrine averaged 24 +- 1 mu-m (N = 27) and 17 +- 1 mu-m (N = 32), respectively, at a renal perfusion pressure of 100 mm Hg. Superfusion with 0.01 to 100 nM 11,12-EET caused graded increases in diameters of the interlobular and afferent arterioles. At a dose of 100 nM, 11,12-EET increased the diameters of the interlobular and afferent arterioles by 18 +- 2% (N = 10) and 20 +- 3% (N = 9), respectively. The vasodilatory response to 11,12-EET was stereoselective because 11,12(R,S)-EET but not 11,12(S,R)-EET increased the diameters of the interlobular and afferent arterioles. 14,15-EET had a much smaller effect and increased the diameters of the these vessels by 10%; 8,9-EET did not significantly affect vascular diameters. In contrast, 5,6-EET constricted the interlobular and afferent arterioles by 16 +- 3% (N = 6) and 21 +- 3% (N = 7), respectively. The corresponding diols, 5,6-DIHETE and 11,12-DIHETE, had no effect on diameters of the interlobular and afferent arterioles at concentrations up to 1 mu-M. The vasodilatory response to 11,12-EET was not affected by removal of the endothelium or by inhibition of cyclooxygenase with indomethacin. In contrast, the vasoconstrictor response to 5,6-EET was abolished by both removal of the endothelium or cyclooxygenase inhibition. The thromboxane/enderoperoxide receptor inhibitor, SQ 29,548, resulted in a 60% attenuation of the afferent arteriolar vasoconstriction to 5,6-EET, These results indicate that the preglomerular vasoconstriction to 5,6-EET is cyclooxygenase dependent and requires an intact endothelium, whereas the vasodilation to 11,12-EET is stereoselective and is the result of direct action of the epoxide on the preglomerular vascular smooth muscle.

ACCESSION NUMBER: 1997:29705 BIOSIS
DOCUMENT NUMBER: PREV199799328908
TITLE: Actions of epoxygenase metabolites on the preglomerular vasculature.
AUTHOR(S): Imig, John D. (1); Navar, L. G.; Roman, Richard J.; Reddy, K. Kishta; Falck, John R.
CORPORATE SOURCE: (1) Dep. Physiol., SL39, Tulane Univ. Sch. Med., 1430 Tulane Ave., New Orleans, LA 70112 USA
SOURCE: Journal of the American Society of Nephrology, (1996) Vol. 7, No. 11, pp. 2364-2370.
ISSN: 1046-6673.
DOCUMENT TYPE: Article
LANGUAGE: English
SO Journal of the American Society of Nephrology, (1996) Vol. 7, No. 11, pp. 2364-2370.
ISSN: 1046-6673.
IT Major Concepts
Cardiovascular System (Transport and Circulation); Enzymology

(Biochemistry and Molecular Biophysics); Muscular System (Movement and Support); Urinary System (Chemical Coordination and Homeostasis)
IT Miscellaneous Descriptors
AFFERENT ARTERIOLE; **CARDIOVASCULAR** SYSTEM; CYCLOOXYGENASE; EPOXYEICOSATRIENOIC ACID; INTERLOBULAR ARTERIOLE; JUXTAMEDULLARY NEPHRON; MUSCULAR SYSTEM; PREGLOMERULAR VASCULAR SMOOTH MUSCLE; STEREOSELECTION; URINARY SYSTEM; VASCULAR SYSTEM; VASOCONSTRICTION;. .
.
RN **97717-69-6** (EPOXYEICOSATRIENOIC ACID)
39391-18-9 (CYCLOOXYGENASE)

L6 ANSWER 26 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1997:4906 BIOSIS
DOCUMENT NUMBER: PREV199799304109
TITLE: Epoxyeicosatrienoic acids are potent vasodilators in the canine coronary microcirculation.
AUTHOR(S): Oltman, Christine L. (1); Weintraub, Neal L.; Vanrollins, Mike; Dellsperger, Kevin C.
CORPORATE SOURCE: (1) Univ. Iowa, Iowa City, IA USA
SOURCE: Circulation, (1996) Vol. 94, No. 8 SUPPL., pp. I488. Meeting Info.: 69th Scientific Sessions of the American Heart Association New Orleans, Louisiana, USA November 10-13, 1996
ISSN: 0009-7322.
DOCUMENT TYPE: Conference; Abstract
LANGUAGE: English
SO Circulation, (1996) Vol. 94, No. 8 SUPPL., pp. I488.
Meeting Info.: 69th Scientific Sessions of the American Heart Association New Orleans, Louisiana, USA November 10-13, 1996
ISSN: 0009-7322.
IT Major Concepts
Cardiovascular System (Transport and Circulation); Endocrine System (Chemical Coordination and Homeostasis); Metabolism
IT Chemicals & Biochemicals
EPOXYEICOSATRIENOIC ACIDS; EPOXYEICOSATRIENOIC ACID
IT Miscellaneous Descriptors
CARDIOVASCULAR SYSTEM; CORONARY ARTERY; CORONARY MICROCIRCULATION; ENDOCRINE SYSTEM; ENDOTHELIUM DERIVED HYPERPOLARIZING FACTOR; EPOXYEICOSATRIENOIC ACID METABOLITE; EPOXYEICOSATRIENOIC ACIDS; VASCULAR SYSTEM; VASODILATOR; VASODILATORS
RN 97717-69-6D (EPOXYEICOSATRIENOIC ACIDS)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 27 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1996:496935 BIOSIS
DOCUMENT NUMBER: PREV199699219291
TITLE: Regulation of potassium channels in coronary arterial smooth muscle by endothelium-dependent vasodilators.
AUTHOR(S): Li, Pin-Lan; Zou, Ai-Ping; Campbell, William B.
CORPORATE SOURCE: Med. Coll. Wisconsin, Milwaukee, WI USA
SOURCE: Hypertension (Dallas), (1996) Vol. 28, No. 3, pp. 536. Meeting Info.: 50th Annual Conference and Scientific Sessions of the Council for High Blood Pressure Research Chicago, Illinois, USA September 17-20, 1996
ISSN: 0194-911X.
DOCUMENT TYPE: Conference
LANGUAGE: English
SO Hypertension (Dallas), (1996) Vol. 28, No. 3, pp. 536.

Meeting Info.: 50th Annual Conference and Scientific Sessions of the Council for High Blood Pressure Research Chicago, Illinois, USA September 17-20, 1996
ISSN: 0194-911X.
IT Major Concepts
Cardiovascular System (Transport and Circulation); Cell Biology; Membranes (Cell Biology); Pharmacology
IT Chemicals & Biochemicals
POTASSIUM; NITRIC OXIDE; PROSTAGLANDIN I2; EPOXYEICOSATRIENOIC. . .
IT Miscellaneous Descriptors
CARDIOVASCULAR SYSTEM; **CARDIOVASCULAR**-DRUG; CORONARY ARTERIAL SMOOTH MUSCLE; ENDOTHELIUM-DEPENDENT VASODILATORS; EPOXYEICOSATRIENOIC ACID; LARGE CONDUCTANCE, CALCIUM ION-ACTIVATED POTASSIUM ION CHANNEL; MEETING ABSTRACT; MEETING POSTER; NITRIC. . .
RN 7440-09-7 (POTASSIUM)
10102-43-9 (NITRIC OXIDE)
35121-78-9 (PROSTAGLANDIN I2)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
14127-61-8 (CALCIUM ION)
24203-36-9 (POTASSIUM ION)

L6 ANSWER 28 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1996:496815 BIOSIS
DOCUMENT NUMBER: PREV199699219171
TITLE: Activation of angiotensin II type 2 receptor (AT2R) causes epoxyeicosatrienoic acids (EETs)-dependent vasodilation in the microperfused rabbit afferent arterioles (Af-Arts.
AUTHOR(S): Arima, Shuji; Ito, Sadayoshi; Omata, Ken; Tsunoda, Kazuo; Yaoita, Hiraku; Abe, Keishi
CORPORATE SOURCE: Dep. Med., Tohoku Univ. Sch. Med., Sendai Japan
SOURCE: Hypertension (Dallas), (1996) Vol. 28, No. 3, pp. 515. Meeting Info.: 50th Annual Conference and Scientific Sessions of the Council for High Blood Pressure Research Chicago, Illinois, USA September 17-20, 1996
ISSN: 0194-911X.
DOCUMENT TYPE: Conference
LANGUAGE: English
SO Hypertension (Dallas), (1996) Vol. 28, No. 3, pp. 515.
Meeting Info.: 50th Annual Conference and Scientific Sessions of the Council for High Blood Pressure Research Chicago, Illinois, USA September 17-20, 1996
ISSN: 0194-911X.
IT Major Concepts
Cardiovascular System (Transport and Circulation); Endocrine System (Chemical Coordination and Homeostasis)
IT Chemicals & Biochemicals
ANGIOTENSIN II; EPOXYEICOSATRIENOIC ACIDS; EPOXYEICOSATRIENOIC ACID
IT Miscellaneous Descriptors
ACTIVATION; AFFERENT ARTERIOLES; ANGIOTENSIN II; **CARDIOVASCULAR** SYSTEM; EPOXYEICOSATRIENOIC ACID; MEETING ABSTRACT; MEETING SLIDE; VASODILATION; VASODILATOR
RN 11128-99-7 (ANGIOTENSIN II)
97717-69-6D (EPOXYEICOSATRIENOIC ACIDS)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 29 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB Epoxyeicosatrienoic acids (EETs) are synthesized by cytochrome P-450 monooxygenases and released into the blood. When taken up by vascular

endothelial and smooth muscle cells, the EETs are primarily esterified to phospholipids or converted to dihydroxyeicosatetraenoic acids (DHETs) and released. In the present studies, radiolabeled 8,9-, 11,12-, and 14,15-DHETs released into the medium from vascular smooth muscle cells were isolated and incubated for 4-16 h with cultured bovine aortic endothelial cells. The uptake ranged from 2 to 50% for the three regioisomers. Hydrolysis of the endothelial lipids and gas chromatographic-mass spectral analyses of the products indicated that all three DHET regioisomers were incorporated intact into phosphatidylcholine and phosphatidylinositol. Similar incubations with EETs confirmed that small amounts of DHETs were also esterified to endothelial phospholipids. These studies indicate that DHETs are incorporated into phospholipids either at the time of EET conversion to DHET or upon release and re-uptake of DHETs. Beside demonstrating for the first time that fatty acid diols are incorporated intact into endothelial lipids, these studies raise the possibility that both EETs and DHETs remain long enough in the vascular wall to produce chronic vasoactive effects.

ACCESSION NUMBER: 1996:328930 BIOSIS
DOCUMENT NUMBER: PREV199699051286
TITLE: Arachidonic acid diols produced by cytochrome P-450 monooxygenases are incorporated into phospholipids of vascular endothelial cells.
AUTHOR(S): Vanrollins, Mike (1); Kaduce, Terry L.; Fang, Xiang; Knapp, Howardd R.; Spector, Arthur A.
CORPORATE SOURCE: (1) Division Clinical Pharmacol., C31-O, GH, Univ. Iowa, Iowa City, IA 52242 USA
SOURCE: Journal of Biological Chemistry, (1996) Vol. 271, No. 24, pp. 14001-14009.
ISSN: 0021-9258.
DOCUMENT TYPE: Article
LANGUAGE: English
SO Journal of Biological Chemistry, (1996) Vol. 271, No. 24, pp. 14001-14009. ISSN: 0021-9258.
IT Major Concepts
Cardiovascular System (Transport and Circulation); Cell Biology; Enzymology (Biochemistry and Molecular Biophysics); Membranes (Cell Biology); Metabolism
IT Chemicals & Biochemicals
CYTOCHROME. . .
RN 9038-14-6D (CYTOCHROME P-450 MONOOXYGENASES)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)

L6 ANSWER 30 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB Background and Purpose: Brain parenchymal tissue metabolizes arachidonic acid (AA) via the cytochrome P450 (P450) epoxygenase to epoxyeicosatrienoic acids (EETs). EETs dilate cerebral arterioles and enhance K+ current in vascular smooth muscle cells from large cerebral arteries. Because of the close association between astrocytes and the cerebral microcirculation, we hypothesized that brain epoxygenase activity originates from astrocytes. This study was designed to identify and localize an AA epoxygenase in rat brain astrocytes. We also tested the effect of EETs on whole-cell K+ current in rat cerebral microvascular smooth muscle cells. Methods A functional assay was used to demonstrate endogenous epoxygenase activity of intact astrocytes in culture. Oligonucleotide primers derived from the sequence of a known hepatic epoxygenase, P450 2C11, were used in reverse transcription/polymerase chain reaction of RNA isolated from cultured rat astrocytes. The appropriate size reverse transcription/polymerase chain reaction product

was cloned into a plasmid vector and sequenced. A polyclonal peptide antibody was raised against P450 2C11 and used in Western blotting and immunocytochemical staining of cultured astrocytes. A voltage-clamp technique was used to test the effect of EETs on whole-cell K+ current recorded from rat cerebral microvascular muscle cells. Results: Based on elution time of known standards and inhibition by miconazole, an inhibitor of P450 AA epoxygenase, cultured astrocytes produce 11,12- and 14,15-EETs when incubated with AA. The sequence of a cDNA derived from RNA isolated from cultured rat astrocytes was 100% identical to P450 2C11. Immunoreactivity to glial fibrillary acidic protein, a marker for astrocytes, colocalized with 2C11 immunoreactivity in double immunochemical staining of cultured astrocytes. EETs enhanced outward K+ current in muscle cells from rat brain microvessels. Conclusions: Our results demonstrate that a P450 2C11 mRNA is expressed in astrocytes and may be responsible for astrocyte epoxygenase activity. Given the vasodilatory effect of EETs, our findings suggest a role for astrocytes in the control of cerebral microcirculation mediated by P450 2C11-catalyzed conversion of AA to EETs. The mechanism of EET-induced dilation of rat cerebral microvessels may involve activation of K+ channels.

ACCESSION NUMBER: 1996:321018 BIOSIS
DOCUMENT NUMBER: PREV199699043374
TITLE: Molecular characterization of an arachidonic acid epoxygenase in rat brain astrocytes.
AUTHOR(S): Alkayed, Nabil J.; Narayanan, Jayashree; Gebremedhin, Debebe; Medhora, Meetha; Roman, Richard J.; Harder, David R. (1)
CORPORATE SOURCE: (1) Cardiovascular Res. Cent., Med. Coll. Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226 USA
SOURCE: Stroke, (1996) Vol. 27, No. 5, pp. 971-979. ISSN: 0039-2499.
DOCUMENT TYPE: Article
LANGUAGE: English
SO Stroke, (1996) Vol. 27, No. 5, pp. 971-979. ISSN: 0039-2499.
IT Major Concepts
Cardiovascular System (Transport and Circulation); Cell Biology; Enzymology (Biochemistry and Molecular Biophysics); Metabolism; Nervous System (Neural Coordination)
IT Chemicals & Biochemicals
RN 94525-96-9 (ARACHIDONIC ACID EPOXYGENASE)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
7440-09-7 (POTASSIUM)

L6 ANSWER 31 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB The intravenous administration of ethchlorvynol (ECV), in dogs, resulted in an acute lung injury (ALI) characterized by a 200 +- 80% increase in venous admixture and a 142 +- 30% increase in extravascular lung water (EVLW). Pretreatment with the cytochrome P-450 inhibitor 8-methoxypsoralen prevented the ECV-induced increase in venous admixture but not the increased EVLW. These findings parallel those reported for cyclooxygenase inhibition in ECV-induced ALI and suggest that an arachidonic acid (AA) metabolite of pulmonary cytochrome P-450 activity may mediate the increase in venous admixture of ALI. We demonstrate that canine pulmonary microsomes metabolize (1-14C)AA to a variety of products, including the cytochrome P-450 metabolites 5,6-, 8,9-, 11,12-, and 14,15-epoxyeicosatrienoic acid (EET). In prostaglandin F-2alpha-contracted, isolated pulmonary venous rings, 5,6-EET induced relaxation in a concentration-dependent manner. This action of 5,6-EET was prevented by

indomethacin (10-5 M). These results suggest that 5,6-EET may serve as the cyclooxygenase-dependent endogenous pulmonary vasodilator responsible for the increase in venous admixture of ECV-induced ALI.

ACCESSION NUMBER: 1996:276316 BIOSIS
DOCUMENT NUMBER: PREV199698832445
TITLE: Inhibition of cytochrome P-450 attenuates hypoxemia of acute lung injury in dogs.
AUTHOR(S): Stephenson, Alan H. (1); Sprague, Randy S.; Weintraub, Neal L.; McMurdo, Lorraine; Lonigro, Andrew J.
CORPORATE SOURCE: (1) Saint Louis Univ., Sch. Medicine, Clinical Pharmacol., 1402 S. Grand Blvd., St. Louis, MO 63104 USA
SOURCE: American Journal of Physiology, (1996) Vol. 270, No. 4 PART 2, pp. H1355-H1362.
ISSN: 0002-9513.
DOCUMENT TYPE: Article
LANGUAGE: English
SO American Journal of Physiology, (1996) Vol. 270, No. 4 PART 2, pp. H1355-H1362.
ISSN: 0002-9513.
IT Major Concepts
Biochemistry and Molecular Biophysics; Blood and Lymphatics (Transport and Circulation); **Cardiovascular** System (Transport and Circulation); Endocrine System (Chemical Coordination and Homeostasis); Enzymology (Biochemistry and Molecular Biophysics); Metabolism; Respiratory System (Respiration)
IT. . .
RN 9035-51-2 (CYTOCHROME P-450)
551-11-1 (PROSTAGLANDIN F-2-ALPHA)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
506-32-1 (ARACHIDONIC ACID)
39391-18-9 (CYCLOOXYGENASE)

L6 ANSWER 32 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1996:208952 BIOSIS
DOCUMENT NUMBER: PREV199698765081
TITLE: Ouabain (OUA) attenuates epoxyeicosatrienoic acid (EET)-induced relaxation and hyperpolarization of bovine coronary arteries.
AUTHOR(S): Pratt, P.; Li, P. L.; Kurian, J.; Campbell, W. B.
CORPORATE SOURCE: Med. Coll. Wis., Milwaukee, WI 53226 USA
SOURCE: FASEB Journal, (1996) Vol. 10, No. 3, pp. A317.
Meeting Info.: Experimental Biology 96, Part I Washington, D.C., USA April 14-17, 1996
ISSN: 0892-6638.
DOCUMENT TYPE: Conference
LANGUAGE: English
SO FASEB Journal, (1996) Vol. 10, No. 3, pp. A317.
Meeting Info.: Experimental Biology 96, Part I Washington, D.C., USA April 14-17, 1996
ISSN: 0892-6638.
IT Major Concepts
Cardiovascular System (Transport and Circulation); Endocrine System (Chemical Coordination and Homeostasis); Membranes (Cell Biology); Metabolism; Nervous System (Neural Coordination)
IT Chemicals. . .
RN 630-60-4 (OUABAIN)
97717-69-6 (EPOXYEICOSATRIENOIC ACID)
10102-43-9 (NITRIC OXIDE)

09/634,369

7440-70-2 (CALCIUM)
7440-09-7 (POTASSIUM)

=>